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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

SERROU, ABDELALI

ART UNIT

PAPER NUMBER

2626

MAIL DATE

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 09/862,437	Applicant(s) NAKAO, YOSHIO	
	Examiner Abdelali Serrou	Art Unit 2626	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 November 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3-9 and 11-13 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3-9 and 11-13 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 May 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

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DETAILED ACTION

Response to Amendment

1. In response to the office action mailed on 8/6/08, applicant filed an amendment on 11/6/08, amending claims 1, 3, 8, 9, 11, and 12. The pending claims are 1, 3-9, and 11-13.

Response to Arguments

2. Applicant's arguments with respect to claims 1, 3, 8, 9, 11, and 12 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 3-9, and 11-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ching (U.S 6,560,620 filed on August 3, 1999) in view of Fleischer (US 5,960,383) and further in view of Morris et al. (Lexical cohesion computed by thesaural relations as an indicator of the structure of text, Computational Linguistics, 1999, volume 17, pages 21-48).

As per claims 1 and 12, Ching teaches a multi-document reading apparatus (Col. 1, lines 53-54) for recognizing a thematic hierarchy of each document;

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extracting topic that commonly appears in the plurality of documents based on the recognized thematic hierarchies (col. 4, lines 5-55, wherein Ching compares hierarchically any number of documents and extracts common topics (similarities) from those documents, and col. 13, lines 29-37, wherein the extracted segments within the hierarchy correspond to themes of topics);

taking out a description part corresponding to the extracted topic from each of the plurality of documents and outputting the taken-out description parts as related passages among of the documents (Fig. 8 and col. 2, lines 34-38); and

topic extracting device calculates a relevance score between topics of the topic set based on lexical similarity of description parts corresponding to each topic of the topic set, and extracts a topic set having a relevance score equal to or more than a threshold that is set based on inclusive relationship of topics, and the threshold corresponding to any topic among topics which constitutes a target extraction of topic set, is a maximum value of calculated relevance score related to a topic which is included in a sub-tree in thematic hierarchies (a compare program, col. 13, line 65; and col. 18, line 51 – col. 19, line 38).

Ching does not explicitly teach recognizing a thematic hierarchy of a document by an inclusive relationship of topics from large topics to small topics by calculating a lexical cohesion score of description parts in two adjacent windows at each location in each of the plurality of documents, based on a vocabulary appearing in the adjacent windows; and a thematic boundary based on the lexical cohesion score for a plurality of different window widths by repeating the calculating.

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Fleischer in the same field of endeavor teaches an apparatus, method, and computer readable medium for recognizing a thematic hierarchy of a document (col. 4, lines 44-52 , wherein a natural language processor ranks words and phrases based on their relevance to the topic (subject matter) of the document) by an inclusive relationship of topics from large topics to small topics (ranking sections within a document, col. 4, lines 1-30, wherein sections or paragraphs within a document are ranked and output based on the number of lines within that paragraph, upon which the size or grade of a paragraph is determined, and col. 4, lines 44-52 , wherein a natural language processor ranks words and phrases based on their relevancy to the topic (subject matter) of the document).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time of invention, to have added Fleischer's feature of recognizing a thematic hierarchy of a document by an inclusive relationship of topics from large topics to small topics to Ching's multi-documents reading device and side-by-side display feature to documents size detecting system, in order to provide a system that will help the user to compare and extract similarities and differences and quickly identify the changes between the two documents or subdocuments.

Ching and Fleischer do not explicitly teach calculating a lexical cohesion score of description parts in two adjacent windows at each location in each of the plurality of documents, based on a vocabulary appearing in the adjacent windows; and a thematic boundary based on the lexical cohesion score for a plurality of different window widths by repeating the calculating.

Morris in the same field of endeavor teaches the techniques of computing lexical cohesion and finding units that are about the same thing (Abstract).

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Therefore, it would have been obvious to a person of ordinary skill in the art at the time of the invention was made to apply Morris technique of computing lexical cohesion score to the combined system of Ching and Fleischer in order to recognize thematic hierarchy and boundary based on lexical cohesion score. Morris suggests that this would improve automatic text understanding by easing same topic text finding (see conclusion, page 19).

As per claims 3 and 4, Ching teaches a computer that compares the content of two different documents and displays the taken-out description (identified segment) from the first topic on one side and displays the identified segment from the second document on the other side (see figure 8 and col. 2, lines 34-38), and a two windows display system wherein the first window shows the original documents side-by-side and a second window showing the new versions of the original documents side-by-side (Fig. 2, element 210, and Fig. 6).

As per claims 5 and 6, Ching teaches a two windows display system wherein the first window shows the original documents side-by-side and a second window showing the new versions of the original documents side-by-side (Fig. 2, element 210, and Fig. 6). Therefore, it would have been obvious to a person of ordinary skill in the art at the time of the invention was made to modify the presentation system to display two windows, one of the windows including the summaries side by side and the other including the original documents side by side. The motivation is convenience and time saving.

As per claim 7, Ching teaches a plurality of thematic hierarchies corresponding to a plurality of documents (Fig. 9), and a correspondence relationship between the pluralities of thematic hierarchies based on the plurality of common topics in related passages and a designated part of the plurality of documents in accordance with an instruction from the user

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given on the drawing (necessarily disclosed within the process of identifying similar or different section, within selected documents, and comparing their content, col. 2, lines 17-41).

As per claim 8, Ching teaches merging the content of two different documents to produce and output a new integrated document (col.3, lines 9-36, wherein the content of portions of interest from different documents are merged and displayed to the user for ease, and col. 7, lines 48-50, wherein thousands of pages can be grouped into hundreds or even thousands of sections).

As per claim 13, Ching teaches wherein the thematic hierarchy recognizing device determines the thematic hierarchy according to topic-subtopic relations between topics (col. 4, lines 5-18).

As per claim 11, method claim 11 and apparatus claims 1 and 12 are related as method and apparatus of using same, with each claimed element's function corresponding to the claimed method step. Accordingly claim 11 is similarly rejected under the same rationale as applied above with respect to apparatus claims 1 and 12.

As per claim 9, Ching teaches a computer readable medium (col. 5, lines 11-38). The remaining steps are rejected under the same rationale as applied to the method steps of rejected claims 11.

Conclusion

4. Examiner has cited particular columns and line numbers in the references applied to the claims above for the convenience of the applicant. Although the specified citations are

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representative of the teachings of the art and are applied to specific limitations within the individual claim, other passages and figures may apply as well. It is respectfully requested from the applicant in preparing responses, to fully consider the references in entirety as potentially teaching all or part of the claimed invention, as well as the context of the passage as taught by the prior art or disclosed by the Examiner.

In the case of amending the claimed invention, Applicant is respectfully requested to indicate the portion(s) of the specification which dictate(s) the structure relied on for proper interpretation and also to verify and ascertain the metes and bounds of the claimed invention.

When responding to this office action, applicants are advised to clearly point out the patentable novelty which they think the claims present in view of the state of the art disclosed by the references cited or the objections made. Applicants must also show how the amendments avoid such references or objections. See 37C.F.R 1.111(c). In addition, applicants are advised to provide the examiner with the line numbers and pages numbers in the application and/or references cited to assist examiner in locating the appropriate paragraphs.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37

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CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Abdelali Serrou whose telephone number is 571-272-7638. The examiner can normally be reached on 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David R. Hudspeth can be reached on 571-272-7843. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Abdelali Serrou/

Examiner, Art Unit 2626

/David R Hudspeth/

Supervisory Patent Examiner, Art Unit 2626